

#6



PCT09

## RAW SEQUENCE LISTING

DATE: 08/06/2002

PATENT APPLICATION: US/09/807,742

TIME: 13:43:31

Input Set : A:\1465us00.app

Output Set: N:\CRF3\08062002\I807742.raw

ENTERED

3 <110> APPLICANT: DANIELL, HENRY  
 5 <120> TITLE OF INVENTION: PRODUCTION OF PHARMACEUTICAL PROTEINS IN TRANSGENIC  
 6 PLASTIDS  
 8 <130> FILE REFERENCE: 1465-PCT-US-00  
 10 <140> CURRENT APPLICATION NUMBER: 09/807,742  
 11 <141> CURRENT FILING DATE: 2001-04-18  
 13 <150> PRIOR APPLICATION NUMBER: PCT/US01/06288  
 14 <151> PRIOR FILING DATE: 2001-02-28  
 16 <160> NUMBER OF SEQ ID NOS: 19  
 18 <170> SOFTWARE: PatentIn Ver. 2.1  
 20 <210> SEQ ID NO: 1  
 21 <211> LENGTH: 1250  
 22 <212> TYPE: PRT  
 23 <213> ORGANISM: Artificial Sequence  
 25 <220> FEATURE:  
 26 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 27 peptide  
 29 <220> FEATURE:  
 30 <223> OTHER INFORMATION: This sequence may encompass 1-250 Gly Val Gly Val Pro  
 31 repeats  
 33 <400> SEQUENCE: 1  
 34 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
 35 1 5 10 15  
 37 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
 38 20 25 30  
 40 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
 41 35 40 45  
 43 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
 44 50 55 60  
 46 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
 47 65 70 75 80  
 49 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
 50 85 90 95  
 52 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
 53 100 105 110  
 55 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
 56 115 120 125  
 58 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
 59 130 135 140  
 61 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
 62 145 150 155 160  
 64 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
 65 165 170 175

## RAW SEQUENCE LISTING

DATE: 08/06/2002

PATENT APPLICATION: US/09/807,742

TIME: 13:43:31

Input Set : A:\1465us00.app

Output Set: N:\CRF3\08062002\I807742.raw

```

67 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
68      180      185      190
70 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
71      195      200      205
73 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
74      210      215      220
76 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
77 225      230      235      240
79 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
80      245      250      255
82 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
83      260      265      270
85 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
86      275      280      285
88 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
89      290      295      300
91 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
92 305      310      315      320
94 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
95      325      330      335
97 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
98      340      345      350
100 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
101      355      360      365
103 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
104      370      375      380
106 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
107 385      390      395      400
109 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
110      405      410      415
112 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
113      420      425      430
115 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
116      435      440      445
118 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
119      450      455      460
121 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
122 465      470      475      480
124 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
125      485      490      495
127 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
128      500      505      510
130 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
131      515      520      525
133 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
134      530      535      540
136 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
137 545      550      555      560
139 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly

```

## RAW SEQUENCE LISTING

DATE: 08/06/2002

PATENT APPLICATION: US/09/807,742

TIME: 13:43:31

Input Set : A:\1465us00.app

Output Set: N:\CRF3\08062002\I807742.raw

140				565				570				575	
142	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val
143				580				585				590	
145	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Gly
146				595				600				605	
148	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
149				610				615				620	
151	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
152	625							630				635	
154	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly
155				645				650				655	
157	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val
158				660				665				670	
160	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Gly
161				675				680				685	
163	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
164				690				695				700	
166	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
167	705							710				715	
169	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly
170				725				730				735	
172	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val
173				740				745				750	
175	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Gly
176				755				760				765	
178	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
179				770				775				780	
181	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
182	785							790				795	
184	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly
185				805				810				815	
187	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val
188				820				825				830	
190	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Gly
191				835				840				845	
193	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
194				850				855				860	
196	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
197	865							870				875	
199	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly
200				885				890				895	
202	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val
203				900				905				910	
205	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Gly
206				915				920				925	
208	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly
209				930				935				940	
211	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
212	945							950				955	
												960	

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/807,742

DATE: 08/06/2002

TIME: 13:43:31

Input Set : A:\1465us00.app

Output Set: N:\CRF3\08062002\I807742.raw

```

214 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
215           965           970           975
217 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
218           980           985           990
220 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
221           995           1000           1005
223 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
224       1010           1015           1020
226 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
227 1025           1030           1035           1040
229 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
230           1045           1050           1055
232 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
233           1060           1065           1070
235 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
236       1075           1080           1085
238 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
239       1090           1095           1100
241 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
242 1105           1110           1115           1120
244 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
245           1125           1130           1135
247 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
248       1140           1145           1150
250 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
251       1155           1160           1165
253 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
254       1170           1175           1180
256 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
257 1185           1190           1195           1200
259 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
260           1205           1210           1215
262 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
263           1220           1225           1230
265 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
266       1235           1240           1245
268 Val Pro
269       1250
272 <210> SEQ ID NO: 2
273 <211> LENGTH: 6
274 <212> TYPE: PRT
275 <213> ORGANISM: Artificial Sequence
277 <220> FEATURE:
278 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative
279     endoplasmic reticulum retention signal
281 <400> SEQUENCE: 2
282 Ser Glu Lys Asp Glu Leu
283   1           5
286 <210> SEQ ID NO: 3

```

## RAW SEQUENCE LISTING

DATE: 08/06/2002

PATENT APPLICATION: US/09/807,742

TIME: 13:43:31

Input Set : A:\1465us00.app

Output Set: N:\CRF3\08062002\I807742.raw

287 <211> LENGTH: 4  
288 <212> TYPE: PRT  
289 <213> ORGANISM: Artificial Sequence  
291 <220> FEATURE:  
292 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative  
293 peptide  
295 <400> SEQUENCE: 3  
296 Gly Pro Gly Pro  
297 1  
300 <210> SEQ ID NO: 4  
301 <211> LENGTH: 25  
302 <212> TYPE: DNA  
303 <213> ORGANISM: Artificial Sequence  
305 <220> FEATURE:  
306 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer  
308 <400> SEQUENCE: 4  
309 ccgtcgacgt agagaagtcc gtatt 25  
312 <210> SEQ ID NO: 5  
313 <211> LENGTH: 27  
314 <212> TYPE: DNA  
315 <213> ORGANISM: Artificial Sequence  
317 <220> FEATURE:  
318 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer  
320 <400> SEQUENCE: 5  
321 gcccatggta aaatcttggt ttattta 27  
324 <210> SEQ ID NO: 6  
325 <211> LENGTH: 28  
326 <212> TYPE: DNA  
327 <213> ORGANISM: Artificial Sequence  
329 <220> FEATURE:  
330 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer  
332 <400> SEQUENCE: 6  
333 cctttaaaaa gccttcatt ttctattt 28  
336 <210> SEQ ID NO: 7  
337 <211> LENGTH: 25  
338 <212> TYPE: DNA  
339 <213> ORGANISM: Artificial Sequence  
341 <220> FEATURE:  
342 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer  
344 <400> SEQUENCE: 7  
345 gccatggtaa aatcttggtt tatta 25  
348 <210> SEQ ID NO: 8  
349 <211> LENGTH: 12  
350 <212> TYPE: DNA  
351 <213> ORGANISM: Artificial Sequence  
353 <220> FEATURE:  
354 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative  
355 preferred nucleotide sequence  
357 <400> SEQUENCE: 8

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/807,742

DATE: 08/06/2002

TIME: 13:43:32

Input Set : A:\1465us00.app

Output Set: N:\CRF3\08062002\I807742.raw